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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/263,440	03/05/1999	BYUNG-SEOK RYU	678-231-P863	1816

28249 7590 08/18/2004  
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EXAMINER

KNEPPER, DAVID D

ART UNIT PAPER NUMBER

2654

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/263,440	RYU, BYUNG-SEOK	
	<b>Examiner</b>	<b>Art Unit</b>	
	David D. Knepper	2654	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>19 JUL 2004</u> | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's correspondence filed on 19 July 2004 has been received and considered. Claims 1-8 and 10 are pending. Claim 9 has been canceled.

#### **Priority Claims**

2. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).

#### **Claims**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5<sup>7</sup> and 10 are rejected under 35 U.S.C. § 103 as being unpatentable over Lemaire (5,613,038 or 5,594,658).

As per claims 1, 8 "synthesizing speech" is taught with his speech processor 250, figure 2):

“handset circuitry for transferring an alarm signal to said hands free kit to generate an alarm to inform a user of the receipt of said short message” (his message reception is indicated using a ‘beep’ or vibrating device, column 4, lines 25-32);

“hands free kit for transmitting said short message calling signal to said handset” (suggested by his apparatus and methods for personalizing or tailoring destination addresses for digital text mail and pager services to the specific requirements of each individual user of the system..., column 1, lines 40-67 – for a “short message” see his message stream 140, figure 1, column 2); and

“short message calling signal is generated upon input by the user of a predetermined voice command” (his alternate method of mode control is speech recognition..., column 3, lines 32-40).

It is noted that Lemaire does not explicitly teach “handset” and “hands free”. However, he teaches in column 1, lines 40-60 that it is well known to make receiver units physically small so they can be carried or easily fitted to a location so that they are portable. He also teaches that it is well known to incorporate a wide variety of telephone and voice interface products in column 2, lines 20-35 to include computers and pagers. Zeng It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to form the receiver into any small shape that a human being is capable of carrying because <sup>NDL</sup> Lemaire explicitly teaches that it is obvious to make the device small enough to be carried or fitted in cars or other locations.

Claim 5: “detecting whether speech is input; detecting whether said sound data storage contains sound data having substantially the same sound characteristics as said input speech” (his speech recognition, col. 3);

“detecting whether said input speech is a sound synthesis command...transmitting short message calling signal generated upon input by said user’s voice command” (his method of mode control is speech recognition, col. 3);

“detecting said short message received...analyzing said short message...converting said synthesized sound data into analog” (see claim 1 above).

Claims 6, 7: “detecting...storing... and transmitting” is taught by Lemaire who specifically teaches that the messages will be stored for selective playback by the user (see abstract, figures 2 and 4).

5. Claims 2 and 3 are rejected under 35 U.S.C. § 103 as being unpatentable over Lemaire (5,613,038 or 5,594,658) as applied to claim 1 above in view of Klatt (Review of text-to-speech conversion for English).

It is noted that Lemaire does not teach sound elements and dictionary details. However, he clearly teaches that the speech processor 250 is a conventional single-chip speech synthesizer in column 3 (bottom). He teaches that it is well known to use various text-to-speech implementations in column 3, lines 65 to column 4, line 3 where he teaches that a computer program could use speech units such as allophones or other specialized codes for construction of speech output from analysis of a text message. One of ordinary skill in the art of speech synthesis knows that allophones are, by definition, variations of phonemes which define the smallest distinguishable units<sup>of</sup> speech. One of ordinary skill in the art knows that a synthesizer would combine this type of stored data with a combination of dictionaries, tables and rules to define allowable combinations of speech units such as words, sentences, etc. See, for example, col. 2, lines 57-67 where he

indicates the possible use of codes for inflection and phrasing (i.e. – pitch variations based on linguistic rules and grammar).

It is noted that Lemaire does not teach details of speech-to-text synthesis. Klatt teaches the state of the art for speech synthesis in 1987. Therefore, it would have been obvious to incorporate the notoriously well known speech synthesis techniques into any synthesizer developed after those discussed in Klatt.

Claim 2: “sound elements” (Klatt’s phonemes);

“dictionary” (Klatt’s phonemic dictionary, page 767);

“sentence analyzer...grammatical information” (Klatt’s syntactic and semantic analyses, pages 773-774);

“speech synthesizer...transferring said audio signals to a speaker...and a control unit” are inherent in the use of a synthesizer unit already covered by Lemaire.

6. Claim 4 is rejected under 35 U.S.C. § 103 as being unpatentable over Lemaire (5,613,038 or 5,594,658) in view of Klatt as applied to claim 2 above, further in view of Marui (4,959,850).

It is noted that Lemaire does not teach the use of “an echo canceller for eliminating reflective noises.” Any one of pedestrian skill in the art knows that an echo canceller removes reflective noises (echoes). The use of such a device is notoriously well known in any telephone environment. See, for example, the echo canceller 415 taught by Marui in figure 7. It would have been obvious to use an echo canceller to remove unwanted noise as taught by Marui. The combination with Lemaire is considered

obvious because they are in the same field which is the use of wireless telephone communications. Klatt is relied upon for the details of speech synthesis as noted above and is combinable as previously noted.

7. Claim 10 is rejected under 35 U.S.C. § 103 as being unpatentable over Lemaire (5,613,038 or 5,594,658) as applied to claim 8 above, further in view of Gerson (4,870,686).

It is noted that Lemaire does not explicitly teach “voice dialing mode”. However, he clearly teaches that it is desirable and well known to combine various telephone voice response interfaces (col. 2). Gerson teaches that it is notoriously well known to use hands-free voice command dialing system in a telephone environment such as Lemaire’s which includes both speech recognition and speech synthesis (Gerson, figure 1). Therefore, it would have been obvious to combine the voice dialing of Gerson with the short message control system of Lemaire in combination with telephone dialing controlled by speech.

The claimed “synthesize sounds of the corresponding voice dialing mode data without synthesizing sounds of said short message” is obvious because of Gerson’s teaching to provide feedback – when a string of digits is followed by a predetermined pause time interval, the recognized digits will be replied via the speech synthesizer, abstract.

**Remarks**

8. New prior art has been applied which shows that short messages are commonly transmitted and received in a wireless telephone environment. This new prior art shows it is well known that small computers with telephone voice response interfaces can be built to be carried or conveniently placed by the user in various locations. It is well known to allow message traffic and database access via wireless telephones.

The device can store the messages for selective playback. Text messages may be played back audibly using text-to-speech (speech synthesis). Control of the device may be implemented with speech recognition.

**Prior Art**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jonsson (5,699,053) is cited to show that it is well known to allow short messages to be transferred among or between users in a wireless telephone environment.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

TC2600 Fax Center  
(703) 872-9314

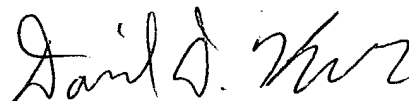
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read "David D. Knepper", with a stylized flourish at the end.

David D. Knepper  
Primary Examiner  
**Art Unit 2654**  
August 11, 2004